

ABSTRACT OF THE DISCLOSURE

A diamond electrode having a prolonged life by combining a conventional diamond electrode having a relatively short life with other components is provided. A diamond electrode for electrolysis includes an electrode substrate, at least the surface of which comprises Magneli phase titanium oxide, and conductive diamond supported as an electrode catalyst on a surface of the electrode. The electrode catalyst may contain a titanium oxide powder. Magneli phase titanium oxide improves conductivity without forming a stable oxide layer on the substrate surface.